REMARKS

In view of the foregoing amendments and following remarks, Applicant respectfully requests reconsideration of the present application.

At the time of the outstanding Office Action, claims 1, 3-8, 10-13, 15, 17, 18, 20, 21, 23-26, 28-30 and 32-36 were pending. By this Reply, Applicant has amended independent claims 1, 8, 15, 21 and 30, and has canceled claims 5, 6, 12, 13, 20, 25, 26, and 32. Accordingly, claims 1, 3, 4, 7, 8, 10, 11, 15, 17, 18, 21, 23, 24, 38-30, and 33-36 will remain pending upon entry of this amendment. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with appropriate status identifiers.

Amendments To Claims

By way of the present reply, Applicant has: amended independent claim 1 to include the features of canceled claims 5, 6 and 20. Corresponding features have been added to claims the other independent claims, i.e., claims 8, 15, and 21, including features previously recited in canceled dependent claims 12, 14, 26 and 32. Claim 30 is amended to reflect the cancellation of intervening claim 26 and correct a minor typographical error. Applicant submits that the amendments to the claims do not raise any new issues or require a new search. Accordingly, Applicant requests that they be entered.

35 U.S.C. § 103 Rejections

Claims 1, 3-8, 10-13, 15, 17, 18, 20, 21, 23-26, 28-30, and 32-36 stand rejected under 35 U.S.C § 103(a) as being unpatentable over U.S. Patent No. 6,175,917 to Arrow et al. (Arrow) in view of U.S. Patent No. 7,447,901 to Sullenberger et al. (Sullenberger). Applicant respectfully traverses this rejection.

Applicant submits that the independent claims are patentable over Arrow and Sullenberger for the reasons set forth in Applicant's prior responses. In order to expedite prosecution, however, Applicant has further amended the independent claims to more clearly distinguish over the cited prior art.

Consider claim 1, which, as amended recites:

A network comprising:

IPsec processing apparatuses, which use an IPsec (Internet Protocol security protocol) for encrypting and authenticating communications via the Internet between two different centers; and

an IPsec setting apparatus, which manages IPsec settings of the IPsec processing apparatuses,

wherein in response to receiving a request from a first IP processing apparatus to communicate with a second IPsec processing apparatus, the IPsec setting apparatus transmits a request to the second IPsec processing apparatus and upon receiving a reply to the request from the second IPsec processing apparatus the IPsec setting apparatus transmits a common encryption key to the first and second IPsec process apparatuses to be used to encrypt and authenticate IPsec communications between the first and second process apparatuses.

wherein said IPsec setting apparatus generates SA (Security Association) parameters, to be used in the IPsec communication between the first and the second IPsec processing apparatuses, based on the contents of the request message and contents of IPsec policies stored by the IPsec setting apparatus;

wherein said IPsec setting apparatus sends a distribution message including the policies of said IPsec and the SA parameters in response to the request message; and

wherein the IPsec processing apparatus retransmits the request for communication to the IPsec setting apparatus and receives new setting information before a term of validity for the SA expires.

The Office Action principally relies on Arrow, but acknowledges that it fails to disclose several features of claim I, including: (1) use of IPsec (IP security protocol); (2) a request to an IPsec setting apparatus from a first IP processing apparatus to communicate with a second IPsec processing apparatus; or (3) an IPsec processing apparatus that transmits a common encryption key to the first and second IPsec process apparatuses to be used to encrypt and authenticate IPsec communications between the first and second process apparatuses. In view of these deficiencies, the Office Action relies on Sullenberger. See Office Action at 3.

Sullenberger, however, merely teaches a general specification of an IPsec protocol. Specifically, in order realize encryption by using IPsec, a common encryption key is needed Therefore, an IKE is generally utilized as a key exchange protocol. See Sullenberger at 1:52-59. Therefore, Sullenberger teaches use of the IKE on the basis of the general IKE process. As noted in Applicant's specification, generation of the common encryption key takes a long time, which delays the start of communication. See published application at ¶[0014].

In contrast, in the present invention as claimed, the IKE is not used for acquisition of the common encryption key. Rather, the IPsec setting apparatus "generates SA (Security Association) parameters, to be used in the IPsec communication between the first and the second IPsec processing apparatuses," without the use of the IKE, to supply IPsec processing apparatuses with the SA parameter. As a result, it is not necessary to perform an arithmetic operation of Diffie-Helman as used in IKE. See published application at ¶[00040]. Further, as recited in amended claim 1, "the IPsec processing apparatus retransmits the request for communication to the IPsec setting apparatus and receives new setting information before a term of validity for the SA expires."

These features of claim 1 are entirely absent from both Arrow and Sullenberger. Further, the remaining independent claims are amended to include these features as noted above. Accordingly, all pending claims are believed to be patentable over the cited combination.

In rejecting now canceled claims 20 and 32, the Office Action asserts that "Arrow and Sullenberger teach the claimed subject matter: an IPsec processing apparatus (see claim 15 above). They further disclose acquiring new setting information (see column 10, lines 41-51 of Arrow)." The cited portions of Arrow, however, merely states as follows:

In an embodiment of the present invention, pointer memory 410 also stores some of the contents of configuration data 602 (shown in Fig. 6) of storage memory 408. Illustratively, when VPN unit 115 is configured or reconfigured by VPN management station 160, portions of configuration data 602 essential to the continued operation of VPN unit 115 (e.g., the IP address of VPN unit 115, default route for communicating with the VPN management station) are copied into pointer memory 410. Doing so helps ensure the continued operation of VPN unit 115 during the configuration or reconfiguration process.

Nothing in the cited portion above or elsewhere in Arrow, teaches that a "IPsec processing apparatus retransmits the request for communication to the IPsec setting apparatus and receives new setting information before a term of validity for the SA expires" as recited in claim 1. Similar features are also recited in the other independent claims. A coordingly, Applicant submits that all claims are patentable over the cited combination.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

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